

USSN 09/808,867, filed March 15, 2001
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Amendments to the Specification:

The Abstract is amended as shown below. Please replace the Abstract with the replacement page containing the amended Abstract which is attached to and made part of this Amendment.

ABSTRACT

-- A medical device coated with one or more antibodies and one or more layers of a matrix is disclosed. The antibodies or fragments thereof react with an endothelial cell surface antigen. Also disclosed are ~~[This invention is directed to]~~ compositions and methods for producing the [a] medical device ~~[coated with a matrix and an antibody which reacts with an endothelial cell antigen]~~. The matrix coating the medical device may be composed of a synthetic material, such as a fullerene, or a ~~[polyurethane, poly-L-lactic acid, cellulose ester or polyethylene glycol. In another embodiment, the matrix is composed of]~~ naturally occurring material ~~[materials, such as collagen, fibrin, elastin, amorphous carbon. In a third embodiment, the matrix may be composed of fullerenes]~~. The fullerenes range from about C60 to about C100. The medical device may be a stent or a synthetic graft. The antibodies promote the adherence of ~~[endothelial]~~ cells captured in vivo on the medical device. The antibodies may be mixed with the matrix or covalently tethered through a linker molecule to the matrix. Following adherence to the medical device, the ~~[endothelial]~~ cells differentiate and proliferate on the medical device. The antibodies may be different types of monoclonal antibodies. ~~[Methods of preparing the coating such composition and methods of treating a mammal with atherosclerosis or other types of vessel obstruction are disclosed.]~~ By facilitating adherence of ~~[endothelial]~~ cells to the surface of the medical device, the disclosed methods and compositions ~~[of this invention]~~ will decrease the incidence of restenosis as well as other thromboembolic complications resulting from implantation of medical devices. --